Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A solar cell ~~comprising~~ comprising:

a semiconductor solar cell substrate having a light receiving surface formed on a first major surface thereof, and generating photovoltaic power based on the light irradiated on the light receiving ~~surface,~~surface; and

a back-side insulating film being a silicon nitride film formed, so as to adjust the Si/N atomic ratio thereof to 0.80 to 1.80, both ends inclusive, by the catalytic CVD process in which a heat catalyst is placed together with the semiconductor solar cell substrate in a reaction vessel;

~~wherein~~ wherein:

the light receiving surface of the semiconductor solar cell substrate is covered with a light-receiving-surface-side insulating film provided as an inorganic insulating film composed of an inorganic insulating material ~~having a cationic component thereof principally comprising silicon, and~~, which is silicon nitride;

the light-receiving-surface-side insulating film is configured as a low-hydrogen-content inorganic insulating film having a hydrogen content of less than ~~10 at%~~10%; and

a film-forming gas, which comprises a silicon source gas and a nitrogen source gas, is supplied to the surface of the semiconductor solar cell substrate while making the film-forming gas into contact with the heat catalyst, so as to deposit silicon nitride produced based on chemical reactions of the film-forming gas on the surface of the semiconductor solar cell substrate.

2. (Currently Amended) The solar cell as claimed in Claim 1, wherein a second major surface of the semiconductor solar cell substrate is covered with a back-side insulating film provided as an inorganic insulating film composed of an inorganic insulating material having a cationic component thereof ~~principally comprising silicon~~, which is silicon nitride, a back electrode is provided so as to cover the back-side insulating film and so as to contact with the back surface of the semiconductor solar cell substrate through conductive portions penetrating the back-side insulating film, and the back-side insulating film is configured as a low-hydrogen-content inorganic insulating film having a hydrogen content of less than 10 at%.

3. (Previously Presented) The solar cell as claimed in Claim 1, wherein the hydrogen content of the low-hydrogen-content inorganic insulating film is 5 at% or less.

4. (Previously Presented) The solar cell as claimed in Claim 1, wherein the light-receiving-surface-side insulating film is configured as the low-hydrogen-content inorganic insulating film composed of silicon nitride having a refractive index of 2 to 2.5, both ends inclusive.

5. (Previously Presented) The solar cell as claimed in Claim 1, wherein the inorganic insulating film is such as being formed by the catalytic CVD process in which a heat catalyst is placed together with the semiconductor solar cell substrate in a reaction vessel; and a film-forming gas, which comprises a silicon source gas and an anion source gas producing an anionic component capable of binding with silicon in an inorganic material to be obtained, at least either one of the silicon source gas and the anion source gas having hydrogen atoms in the molecule thereof, is supplied to the surface of the semiconductor solar cell substrate while making the film-forming gas into contact with the heat catalyst, so as to deposit an inorganic insulating material produced based on chemical reactions of the film-forming gas on the surface of the semiconductor solar cell substrate.

6. (Previously Presented) The solar cell as claimed in Claim 1, wherein the low-hydrogen-content inorganic insulating film is a silicon nitride film formed so as to adjust the Si/N atomic ratio thereof to 0.80 to 1.80, both ends inclusive.

7. (Original) The solar cell as claimed in Claim 6, wherein the silicon nitride film has a refractive index of 2 to 2.5, both ends inclusive.

8. (Canceled)

9. (Currently Amended) A solar cell ~~comprising~~ comprising:

a semiconductor solar cell substrate having a light receiving surface formed on the first major surface thereof, and generating photovoltaic power based on the light irradiated on the light receiving ~~surface,~~surface;

~~wherein~~ wherein:

a second major surface of the semiconductor solar cell substrate is covered with a back-side insulating film provided as an inorganic insulating film composed of silicon nitride as an inorganic insulating ~~material, and~~material;

a back electrode is provided so as to cover the back-side insulating film and so as to contact with the back surface of the semiconductor solar cell substrate through conductive portions penetrating the back-side insulating ~~film, and~~film;

~~wherein~~ the silicon nitride film composing the back-side insulating film is formed so as to adjust the Si/N atomic ratio thereof to 0.80 to 1.80, both ends inclusive, by the catalytic CVD process in which a heat catalyst is placed together with the semiconductor solar cell substrate in a reaction vessel; and

a film-forming gas, which comprises a silicon source gas and a nitrogen source gas, is supplied to the surface of the semiconductor solar cell substrate while making the film-forming gas into contact with the heat catalyst, so as to deposit silicon nitride

produced based on chemical reactions of the film-forming gas on the surface of the semiconductor solar cell substrate.

10. (Previously Presented) The solar cell as claimed in Claim 1, wherein the inorganic insulating film is such as being deposited by the catalytic CVD process on the surface of the semiconductor solar cell substrate after being surface-treated by introducing a surface treatment gas into the reaction vessel, and by supplying the surface treatment gas to the surface of the semiconductor solar cell substrate so as to effect the surface treatment, while making the film-forming gas into contact with the heat catalyst.

11. (Original) The solar cell as claimed in Claim 10, wherein the semiconductor solar cell substrate is a silicon substrate, the inorganic insulating film is a silicon nitride film, and the surface-treatment gas is ammonia gas.

12. (Previously Presented) The solar cell as claimed in Claim 1, wherein the inorganic insulating film is such as being post-treated after being deposited on the surface of the semiconductor solar cell substrate by the catalytic CVD process, by introducing a post-treatment gas into the reaction vessel, and by supplying the post-treatment gas to the surface of the inorganic insulating film, while keeping the post-treatment gas in contact with the heat catalyst.

13. (Currently Amended) A solar cell ~~comprising~~ comprising:

_____a semiconductor solar cell substrate having a light receiving surface formed on the first major surface thereof, and generating photovoltaic power based on the light irradiated on the light receiving ~~surface,~~surface:

_____~~wherein~~ wherein:

_____a second major surface of the semiconductor solar cell substrate is covered with a back-side insulating film composed of an inorganic insulating film having a cationic component thereof principally comprising ~~silicon, and~~silicon:

a back electrode is provided so as to cover the back-side insulating film and so as to contact with the back surface of the semiconductor solar cell substrate through conductive portions penetrating the back-side insulating ~~film, and~~film;

~~wherein~~ the inorganic insulating film is such as being deposited and formed by the catalytic CVD process in which a heat catalyst is placed together with the semiconductor solar cell substrate in a reaction vessel; ~~and~~

a film-forming gas, which comprises a silicon source gas and an anion source gas producing an anionic component capable of binding with silicon in an inorganic material to be obtained, is supplied to the surface of the semiconductor solar cell substrate while making the film-forming gas into contact with the heat catalyst, so as to deposit an inorganic insulating material produced based on chemical reactions of the film-forming gas on the surface of the semiconductor solar cell substrate; and such as being post-treated by introducing a post-treatment gas into the reaction vessel, and by supplying the post-treatment gas to the surface of the inorganic insulating film, while keeping the post-treatment gas in contact with the heat catalyst.

14-23. (Canceled)

24. (Previously Presented) The solar cell as claimed in Claim 9, wherein the inorganic insulating film is such as being deposited by the catalytic CVD process on the surface of the semiconductor solar cell substrate after being surface-treated by introducing a surface treatment gas into the reaction vessel, and by supplying the surface treatment gas to the surface of the semiconductor solar cell substrate so as to effect the surface treatment, while making the film-forming gas into contact with the heat catalyst.

25. (Previously Presented) The solar cell as claimed in Claim 24, wherein the semiconductor solar cell substrate is a silicon substrate, the inorganic insulating film is a silicon nitride film, and the surface-treatment gas is ammonia gas.

26. (Previously Presented) The solar cell as claimed in Claim 9, wherein the inorganic insulating film is such as being post-treated after being deposited on the surface of the semiconductor solar cell substrate by the catalytic CVD process, by introducing a post-treatment gas into the reaction vessel, and by supplying the post-treatment gas to the surface of the inorganic insulating film, while keeping the post-treatment gas in contact with the heat catalyst.

27-31. (Canceled)